

Part III. Planning Process

This updated Plan was prepared by Wasatch Front Regional Council (WFRC) staff members Desmond Heyliger IV, Suzie Swim, LaNiece Dustman and DeeEll Fifield and was supported by the local working group members and other state and local personnel. Other local agencies that have aided in the process include; city and county geographic information systems (GIS) departments, elected officials, local officials, emergency managers, fire and sheriff's departments, planning departments, public works departments and local governmental agencies. The planning process was based on Section 322 requirements of the Disaster Mitigation Act of 2000 (DMA 2000) and supporting guidance documents developed by FEMA and the Utah Division of Homeland Security (DHLS).

The planning process included the following steps:

Step 1: Organize Resources

Utah DHLS contracted with Wasatch Front Regional Council (WFRC) to update the 2003 Wasatch Front Region's Pre-Disaster Mitigation Plan under the planning guidelines included in the DMA 2000.

WFRC designated a core planning team made up of members outlined in Table 3-1. These members were the main constituents of the planning process from the initiation of the Plan, to the development and coordination, and resolution of the Plan's adoption. In addition to the core planning team a technical committee (Table 3-2) was created to review the 2003 PDM Plan and recommend revisions as well as to guide the Plan's overall revision process and content. Local Working Groups were also established by each county to ensure local input and are identified in the following Tables. Working Group meeting participants are listed in Appendix E., Participating Organizations. Every jurisdiction in the WFRC Region was invited to provide a representative to serve on the Working Groups. Some jurisdictions were not able to provide a representative; however, relevant input was solicited and obtained from every jurisdiction from each county. Every jurisdiction will adopt the final, FEMA approved Plan.

Name	Organization
Desmond Heyliger IV	Wasatch Front Regional Council, Hazard Mitigation Planner
Suzie Swim	Wasatch Front Regional Council, Geographic Information Systems Technician
LaNiece Dustman	Wasatch Front Regional Council, Regional Planner
DeeEll Fifield	Wasatch Front Regional Council, Hazard Mitigation Planner

Table 3-1. Core Planning Team

Name	Organization
Brad Bartholomew	Utah Division of Homeland Security
Judy Watanabe	Utah Division of Homeland Security
Nancy Barr	Utah Division of Homeland Security
Laura Siebneck	Utah Division of Homeland Security
LaNiece Dustman	Wasatch Front Regional Council
Desmond Heyliger IV	Wasatch Front Regional Council
DeeEll Fifield	Davis County Sheriff's Office (Consultant)
Terry Turner	Morgan County Emergency Services
Kate Smith	Salt Lake County Emergency Management
Marianne Rutishauser	Tooele County Emergency Management
Lance Petersen	Weber County Emergency Services

Table 3-2. Technical Committee

Member Name	Organization Name
DeeEll Fifield	Davis County Sheriffs Office, Emergency Services (Consultant)
Sgt. Sue Campbell	Davis County Sheriffs Office, Emergency Services
Sgt. Brent Peters	Davis County Sheriffs Office, Emergency Services
Lt. Brad Wilcox	Davis County Sheriff's Office
Carol Lloyd	Davis County Sheriff's Office
Brian Wall	Davis County Sheriff's Office
Lt. Kenny Payne	Davis County Sheriff's Office
Kim Boyd	Centerville City
Mike Carlson	Centerville City
Tom Smith	Davis County Public Works
Scott Anderson	Woods Cross Public Works
Paul White	Farmington City
Mike Monson	Hill Air Force Base
Kimberly Giles	Utah Division of Homeland Security
Ty Bailey	Utah Division of Homeland Security
Bruce Perry	Citizen Corps
Jeff Bassett	South Davis Metro Fire
Chief Larry Gregory	Farmington City Fire
Chief Mike Adams	Layton City Fire
Jim Mason	Layton City Emergency Manager
Scott Messel	Kaysville City
Andy Thompson	Kaysville City
Barry Burton	Davis County Community & Economic Development
James Pehrson	Farmington City
Jared Hall	Farmington City Planning Department
Scott Paxman	Weber Basin Water Conservancy District

Table 3-3. Davis County Working Group

Member Name	Organization Name
Terry Turner	Morgan County Emergency Services
Sherrie Christensen	Morgan County Community Development
Dave Manning	Morgan County Community Development
Kent Smith	Morgan County Community Development
Greg McDonald	Utah Geological Survey
Scott Paxman	Weber Basin Water Conservancy District
Jason Allen	Morgan County Engineer

Table 3-4. Morgan County Working Group

Member Name	Organization Name
Kate Smith	Salt Lake County Emergency Management
Matthew Hurtes	Salt Lake County Emergency Management
Leon Berrett	Salt Lake County
Kevin Barjenbruch	National Weather Service
Marty Shaub	University of Utah
John Stillman	Herriman City
Tina Giles	Herriman City
Don Woodruff	Salt Lake County ARES
Anne Von Weller	Murray City Public Services
David Chisholm	Holladay City
Joan Welch	United Fire Authority
Wes Ing	Salt Lake County Public Utilities
Beth Todd	VECC
Dustin Lewis	South Jordan
David Neale	American Red Cross
John Morgan	Taylorsville
Carol Price	Utah State Courts
Gary Christenson	Utah Geological Survey
Lucas Shaw	Utah Geological Survey
Bob Jeppesen	Salt Lake County
BC Randy Willden	Murray City Fire
Mike Stever	Salt Lake City Emergency Management
Dustin Lewis	South Jordan
Kevin Fenn	Taylorsville-Bennion Improvement District
Diane Stillman	Cottonwood Heights
Carrie Hecht	Salt Lake County
Dawn Black	Salt Lake City Emergency Management
Brent Beardull	Salt Lake County
Dennis Pay	South Salt Lake City
Chris Dunn	Salt Lake County
Mike Whimpey	Central Utah Water Conservancy District

Table 3-5. Salt Lake County Working Group

Member Name	Organization Name
Marianne Rutishauser	Tooele County Emergency Management
Tony Crites	Tooele County Emergency Management
Steve Smith	Tooele County Emergency Management
Jim Lawrence	Tooele County Engineering
Kent Page	Tooele County Engineering
Rod Thompson	Tooele County Engineering
Barry Formo	Tooele County Building Department
Barry Solomon	Utah Geological Survey
Joel Kertanius	Grantsville City
Mike Monson	Hill Air Force Base

Table 3-6 Tooele County Working Group

Member Name	Organization Name
Lance Peterson	Weber County Sheriff's Office, Emergency Services
Tammy Folkman	Weber County Sheriff's Office
Eli Johnson	Weber County Sheriff's Office
Curtis Christensen	Weber County Engineering
Mike Monson	Hill Air Force Base
Nicholas Reed	Hill Air Force Base
Dan Funk	Harrisville City
Gene Bingham	Harrisville City
Marvin Zaugg	Pineview Water
Terel Grimley	Pineview Water
Mick Holmes	Central Weber Sewer
Paul Hodson	Bona Vista Water
Ger Seegmiller	Jones & Associates
Scott Paxman	Weber Basin Water Conservancy District
Paul Ellsworth	Pleasant View City
Fred Hellstrom	Pleasant View City
Steve Harris	Washington Terrace
Mike Davies	Weber State University
Kimberly Giles	Utah Division of Homeland Security
David Lucas	McKay-Dee Hospital
George Chino	Weber-Morgan Health Department
Bill Reyes	Weber-Morgan Health Department
Karlene Marshall	Ogden Regional Medical Center
Marshall Thompson	Standard Examiner
Chief Chuck Stokes	Weber Fire District

Table 3-7. Weber County Working Group

Step 2: Public Officials Outreach

To ensure the public and their officials were supportive of the Plan, a WFRM representative attended County Councils of Governments meetings. These public meetings have representation from each chief elected official in each county. Additionally, some communities recommended meeting with their city council to better inform the community.

Step 3: Continuity in the Planning Process

To meet the requirements set forth by DMA 2000, the WFRM was contracted by DHLS to assist the cities, counties, and special service districts within the Wasatch Front Region in updating the multi-jurisdictional PDM Plan.

Step 4: Data Review and Acquisition

The 2003 PDM Plan was reviewed by the WFRM and the Working Groups and it was determined that all Plan sections would need to be updated and revised. Contact was made with the GIS technician and/or planning commission staff in cities and counties to assess available data at the local level. Agreements were made to allow for the exchange of data between the local jurisdictions and WFRM. Mapping data layers obtained included some or all of the following: local roads, plot maps, county tax assessor's data, hazard data, flood maps, topographic data, aerial photographs and land development data. Working Groups also evaluated 2008 revised data and through a consensus process developed the revised mitigation strategies based on current data.

Step 5: County Hazard Identification and Profile

These steps were conducted by gathering data on the hazards that threaten the planning region. This information was gathered from local, state and federal agencies, organizations, newspapers and other local media accounts, state and local weather records, conversations with the public and local officials, surveys, interviews and meetings with key informants within the planning area. County-level mitigation planning meetings were held during this process and are explained in further detail in Table 3-8 (page 21). During these meetings, attendees had the opportunity to review hazard information and provide comment. These meetings also provided a forum for discussion on the background information that was needed to gain a general understanding of the geography, geology, recreation and natural resources of the planning region.

Step 6: County Vulnerability Assessment

This step was conducted through a review of local base maps, topographical maps, floodplain maps, United States Geological Survey (USGS) and Utah Geological Survey (UGS) maps, Automated Geographic Reference Center (AGRC) maps, FEMA hazard maps and climate maps from the National Climatic Data Center (NCDC). A detailed vulnerability assessment was completed with the use of GIS software for each county within the WFRM planning region. The FEMA modeling program Hazards United States – Multi-Hazards (HAZUS-MH) was used to determine vulnerability to earthquakes and floods. Loss estimation methodology was developed by the core planning team, with assistance from the technical team, to determine vulnerability from each identified hazard. Transportation Analysis Zone (TAZ) and Census 2000 data were used to estimate the number of residents and households that could be affected by the hazard. Utah State sales tax and Equifax Business data were used to find the total number of businesses and annual sales vulnerable to hazards. HAZUS-MH infrastructure data was used to analyze the amount of infrastructure vulnerable to hazards.

Step 7: Review Existing Local Mitigation Actions

This step was conducted through a review of the governing documents of the planning region, as well as, conversations, interviews and meetings with interested community leaders and members. This step identified what goals are already established and adopted for the planning area.

Step 8: Local Working Groups

Davis, Morgan, Tooele, Weber, and Salt Lake Counties each organized a working group. These working groups were comprised of individuals with an interest in hazards mitigation, as well as, technical experts from the government sector having mitigation expertise. These committees included city planners, city engineers, county and city GIS staff, floodplain managers, sheriff and fire staff, and city and county emergency managers. Each completed section of the updated Plan was reviewed and analyzed for accuracy by the working groups, individual county emergency managers and WFRM staff. Every section of the Plan was updated and revised as part of the planning process.

Step 9: Risk Assessment Review

The working groups were tasked with reviewing county risk assessments for accuracy and completeness and with developing mitigation strategies for all natural hazards threatening their respective county. Changes or additions were conveyed to the Core Planning Team for revision.

Step 10: Mitigation Strategy Development

Developing the mitigation strategies was a process in which all of the previous steps were taken into account. Each participating county evaluated, identified and profiled the hazards, and vulnerability assessment completed by WFRM. Each Mitigation Strategy developed underwent a cost/benefit analysis to determine the best action to take given limited budgets allocated to hazard mitigation efforts at the local level.

Step 11: Prioritization of Identified Mitigation Strategies

DMA 2000 requires state, tribal, and local governments to show how mitigation actions were evaluated and prioritized. The prioritization process was completed by the core planning team, the technical team and the local planning teams over a series of planning meetings. Prioritization was accomplished using the STAPLEE method as explained in the FEMA [How to Guide](#), Document 386-3. This process resulted in each Mitigation Strategy given a High, Medium or Low priority by the local planning teams.

Step 12: State Review

DHLS created a formal PDM Plan review committee to insure local plans met the requirements of DMA 2000. This committee reviewed the Plans from March 17 through May 1, 2008, and again from August 1 to August 31, 2008, subsequent to submission to FEMA for final review and acceptance.

Step 13: Adoption

The Plan went through a public adoption process from November to December 31, 2008, and was adopted by the cities and counties listed in Table 2-1 of Part II, Adoption Process and Documentation.

Year	Date	Activity	Purpose
2006	January 1	Scope of Work designates WFRC, Davis, Morgan, Salt Lake, Tooele and Weber Counties as sub-grantees of the state to revise the Wasatch Front PDM Plan.	Continued the relationship with local council members and municipalities.
2007	January-May	Gather information.	Data collection.
	September 10	Meeting with DHLS to discuss the planning process.	Identified planning team and available resources.
	February	HAZUS-MH training.	Taught basic functions of HAZUS-MH model.
	February 27	Kick-off meeting with emergency managers in the WFRC Region.	Identified levels of involvement.
	March-April	Revision of Morgan County risk assessment.	For review.
	March-April	HAZUS-MH modeling runs.	Modeled earthquake and flood hazards.
	April	Revision of Tooele County risk assessment.	For review.
	April	Public meetings - handed out pamphlets and briefed council members about PDM Plan at county councils of governments.	Public involvement.
	April 10	Meeting with technical committee.	Discussed timeline and planning process.
	April 11	Working group meeting. Morgan County Risk Assessment Review.	Reviewed risk assessment.
	April 30	Working group meeting. Tooele County risk assessment review.	Reviewed risk assessment.
	May	Revision of Weber County risk assessment.	For review.
	May 8	Meeting with DHLS.	Progress report.
	May 24	Working group meeting. Weber County risk assessment review.	Reviewed risk assessment.
	May-June	Revision of Davis County risk assessment.	For review.
	June 12	Meeting with Technical Committee.	Progress report.
	June 28	Working group meeting. Davis County risk assessment review.	Reviewed risk assessment.

Year	Date	Activity	Purpose
	July	Revision of Salt Lake County risk assessment.	For review.
	July 10	Meeting with DHLS.	Progress report.
	July 30	Working group meeting. Salt Lake County risk assessment review.	Reviewed risk assessment.
	August	Organized mitigation strategies review workshop.	Organized event.
	August 16	Meeting with Regional Growth Committee.	Briefed on Plan progress.
	August 21	Meeting - mitigation strategies development workshop.	Educated working group members on current hazards mitigation at the federal and state levels. Suggestions provided for mitigation efforts viable at the local level.
	September 5	Working group meeting Morgan County mitigation strategies review.	Reviewed mitigation strategies.
	September 11	Meeting with DHLS.	Progress report.
	September 18	Working group meeting. Weber County mitigation strategies review.	Reviewed mitigation strategies.
	October 1-3	Western States Seismic Policy Council Conference.	Learned about current mitigation strategies for seismic hazards.
	October 9	Meeting with DHLS.	Progress report.
	October 11	Working group meeting. Tooele County mitigation strategies review.	Reviewed mitigation strategies.
	October 22	Meeting with Utah DHLS for review.	Track progress.
	October 25	Working group meeting. Davis County mitigation strategies review.	Reviewed mitigation strategies.
	November 13	Meeting with DHLS.	Progress report.
	November 20	Working group meeting. Salt Lake County mitigation strategies review.	Reviewed mitigation strategies.
	December 11	Meeting with DHLS.	Progress report.
	December	Revised mitigation strategies.	For review.
2008	January	HAZUS-MH modeling runs.	Re-ran models to accommodate county requests and new data.
	January-March	Revision of remaining Plan sections.	For review.
	March 17-April 4	Public comment period.	Public involvement
	April 7	Submitted Plan to Utah DHLS for initial State review and FEMA conditional review.	State and federal review.
	April 7-August 31	Continued Plan revision.	Final Plan proofreading, mitigation strategy updates. Addition of Special Service District data.
	November-December	Local jurisdiction Plan adoption.	
	December1	Submit Plan to Utah DHLS for final State review.	State review.
	December15	Plan forwarded to FEMA for final approval.	Federal review may take up to 45 days, begin work on Technical Hazards

Table 3-8 Planning Process Timeline

Public Involvement

Public involvement opportunities were available and incorporated throughout the development of this Plan. Such opportunities included a public website and public meetings for comment review. Emergency managers, fire and sheriff departments, state and local agencies, business leaders, educators, non-profit organizations, private organizations, and other interested members that could be affected by a hazard within the region or other interested members, were all a part of the planning process.

The first draft of this Natural Hazard Mitigation Plan was placed on the Wasatch Front Regional Council (WFRC) website for a 30-day public comment and review period. There were no public comments received on that draft of the Plan. Members of the public and elected officials from each jurisdiction were notified of the public comments at county Council of Government meetings. Beginning in December, 2008, the final draft of the Plan was placed on the WFRC website for public comment and review. The final Plan draft was also presented to each of the County COG public meeting which resulted in a number of newspaper articles on the PDM planning process. Each jurisdiction and special service district that approved the plan did so in a public meeting.

Information Sources and Revision Process

Background information and data for this Plan was obtained from the sources listed below. From these sources, the WFRC PDM planner extracted relevant information and data. That information and data was subsequently submitted to the County Work Groups for their consideration and approval for inclusion into the Plan. Relevant information gathered from these sources was compiled by the Working Groups and incorporated into this Plan. Refer to Part VII pages 72-73 for more detailed information on how existing plans, studies and technical information was reviewed and used to update the Plan. Based on the large amount of growth in communities throughout the WFRC Region, it was determined by the Working Groups that the entire Plan would be updated.

- Federal Emergency Management Agency (How-to Guides)
- National Weather Service (hazard profile)
- National Climate Data Center (drought, severe weather)
- Utah Division of Emergency Services and Homeland Security (Salt Lake City Mitigation Plan, GIS data, flood data, HAZUS data for flood and earthquake)
- Utah Geologic Survey (GIS data, geologic information)
- Utah Division of Forestry Fire and State Lands (fire data)
- Utah Avalanche Center, Snow and Avalanches, Annual Report 2006-2007 Forest Service
- Utah Department of Transportation (traffic data)
- Utah Automated Geographic Resource Center (GIS data)
- University of Utah Seismic Station (earthquake data)
- Utah State University (climate data)
- Councils or Government
- Association of Governments

- Utah Association of Special Districts
- State Office of Education
- Davis County and municipalities (Emergency Operations Plan, histories, mitigation actions, public input, data: GIS, assessor, transportation, property and infrastructure)
- Morgan County and municipalities (Emergency Operations Plans, histories, mitigation actions, public input, data: GIS, transportation, property and infrastructure)
- Tooele County and municipalities (Emergency Operations Plans, histories, mitigation actions, public input, data: GIS, transportation, property and infrastructure)
- Salt Lake County and municipalities (Emergency Operations Plans, histories, mitigation actions, public input, data: GIS, assessor, transportation, property and infrastructure)
- Weber County and municipalities (Emergency Operations Plan, histories, mitigation actions, public input, data: GIS, assessor, transportation, property and infrastructure, parcel, county projects, county plans)
- Earthquake Safety in Utah
- Utah Natural Hazard Handbook
- Utah Statewide Fire Risk Assessment Project
- A Strategic Plan for Earthquake Safety in Utah
- State of Utah Wildfire Plan 2007
- State of Utah Drought Plan 2007

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